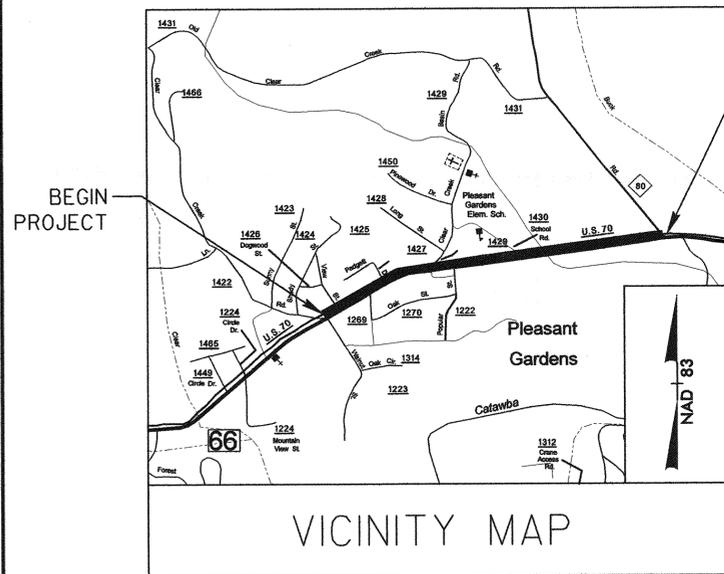


STATE PROJECT: WBS 37840

CONTRACT: C 201671

See Sheet 1-A For Index of Sheets



VICINITY MAP

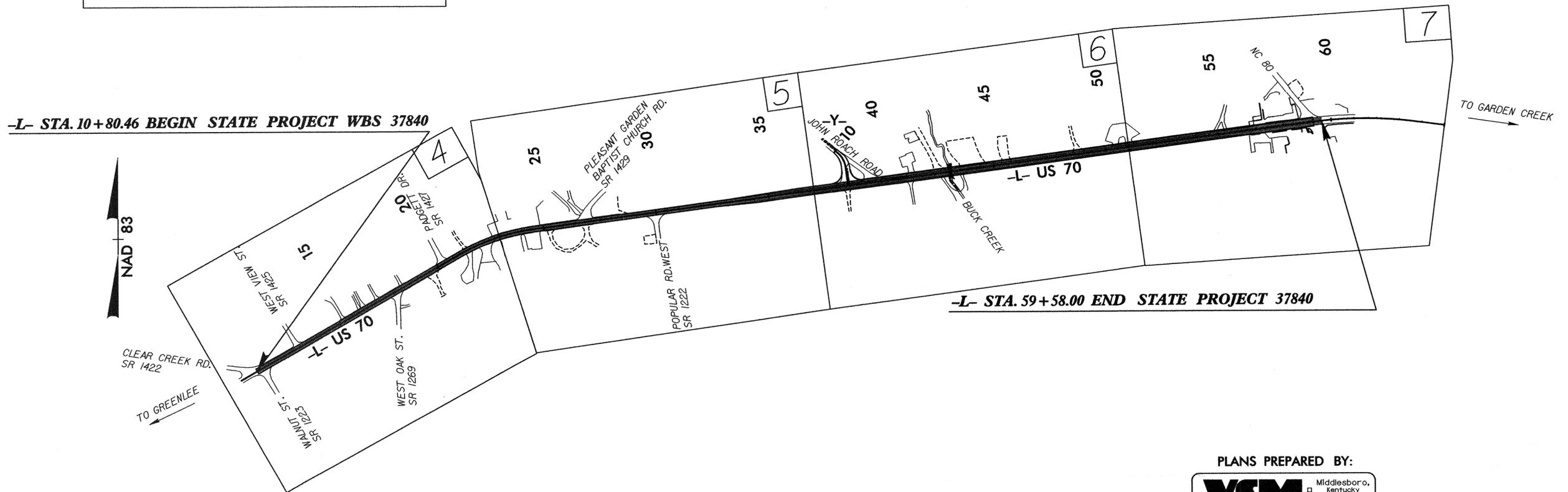
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

McDOWELL COUNTY

LOCATION: US 70 From SR 1422 To NC 80

TYPE OF WORK: Grading, Pavement, Drainage, Guardrail,
Structures, and Utilities

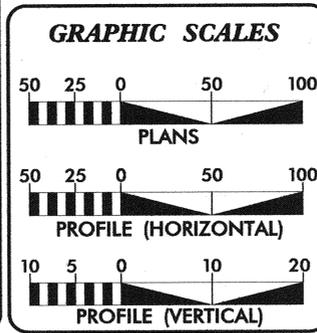
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	WBS 37840	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
37840		PE	
37840		RW, UTILITY	
37840		CONST.	



PLANS PREPARED BY:

Middlesboro, Kentucky 606-248-6600
Greenville, Tennessee 423-639-0021
Asheville, North Carolina 828-255-2796

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DESIGN DATA

ADT 2003 =	10,500
ADT 2013 =	14,200
T =	13 % *
V =	50 MPH
* (7% DUAL + 6% TTST)	

PROJECT LENGTH

LENGTH ROADWAY PROJECT WBS 37840 =	0.923 MI
LENGTH STRUCTURE PROJECT WBS 37840 =	0.000 MI
TOTAL LENGTH PROJECT WBS 37840 =	0.923 MI

Plans Prepared for:

DIVISION OF HIGHWAYS
DIVISION 13 - 55 ORANGE ST., ASHEVILLE NC, 28801

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: **JANUARY 24, 2005**

LETTING DATE: **MARCH 20, 2007**

LLOYD D. BROWN, PE
PROJECT ENGINEER

DAVID JORDAN, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

12/19/06

ROADWAY DESIGN ENGINEER

12/19/06

SIGNATURE: [Signature]

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR

DATE

5/28/99
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

*S.U.E = SUBSURFACE UTILITY ENGINEER



CONVENTIONAL SYMBOLS

ROADS & RELATED ITEMS

Edge of Pavement	-----
Curb	-----
Prop. Slope Stakes Cut	----- C -----
Prop. Slope Stakes Fill	----- F -----
Prop. Woven Wire Fence	-----○-----
Prop. Chain Link Fence	-----□-----
Prop. Barbed Wire Fence	-----◇-----
Prop. Wheelchair Ramp	-----WCR-----
Curb Cut for Future Wheelchair Ramp	-----CCFR-----
Exist. Guardrail	-----T-----
Prop. Guardrail	-----T-----
Equality Symbol	-----⊕-----
Pavement Removal	-----X-----

RIGHT OF WAY

Baseline Control Point	-----◆-----
Existing Right of Way Marker	-----△-----
Exist. Right of Way Line w/Marker	-----△-----
Prop. Right of Way Line with Proposed	-----▲-----
RW Marker (Iron Pin & Cap)	-----▲-----
Prop. Right of Way Line with Proposed	-----▲-----
(Concrete or Granite) RW Marker	-----⊕-----
Exist. Control of Access Line	-----⊕-----
Prop. Control of Access Line	-----⊕-----
Exist. Easement Line	-----E-----
Prop. Temp. Construction Easement Line	-----E-----
Prop. Temp. Drainage Easement Line	-----TDE-----
Prop. Perm. Drainage Easement Line	-----PDE-----

HYDROLOGY

Stream or Body of Water	-----
River Basin Buffer	-----RBB-----
Flow Arrow	-----→-----
Disappearing Stream	-----Y-----
Spring	-----○-----
Swamp Marsh	-----↓-----
Shoreline	-----
Falls, Rapids	-----+-----
Prop Lateral, Tail, Head Ditches	-----← FLOW -----

STRUCTURES

MAJOR	
Bridge, Tunnel, or Box Culvert	-----CONC-----
Bridge Wing Wall, Head Wall and End Wall	-----CONC WW-----

MINOR	
Head & End Wall	-----CONC HW-----
Pipe Culvert	-----
Footbridge	----->-----
Drainage Boxes	-----□ CB-----
Paved Ditch Gutter	-----

UTILITIES

Exist. Pole	-----●-----
Exist. Power Pole	-----○-----
Prop. Power Pole	-----○-----
Exist. Telephone Pole	-----○-----
Prop. Telephone Pole	-----○-----
Exist. Joint Use Pole	-----○-----
Prop. Joint Use Pole	-----○-----
Telephone Pedestal	-----□-----
UG Telephone Cable Hand Hold	-----□-----
Cable TV Pedestal	-----□-----
UG TV Cable Hand Hold	-----□-----
UG Power Cable Hand Hold	-----□-----
Hydrant	-----◇-----
Satellite Dish	-----◇-----
Exist. Water Valve	-----⊕-----
Sewer Clean Out	-----⊕-----
Power Manhole	-----⊕-----
Telephone Booth	-----□-----
Cellular Telephone Tower	-----⊕-----
Water Manhole	-----⊕-----
Light Pole	-----○-----
H-Frame Pole	-----○-----
Power Line Tower	-----⊕-----
Pole with Base	-----⊕-----
Gas Valve	-----◇-----
Gas Meter	-----◇-----
Telephone Manhole	-----⊕-----
Power Transformer	-----⊕-----
Sanitary Sewer Manhole	-----⊕-----
Storm Sewer Manhole	-----⊕-----
Tank; Water, Gas, Oil	-----⊕-----
Water Tank With Legs	-----⊕-----
Traffic Signal Junction Box	-----⊕-----
Fiber Optic Splice Box	-----⊕-----
Television or Radio Tower	-----⊕-----
Utility Power Line Connects to Traffic Signal Lines Cut Into the Pavement	-----TS-----

Recorded Water Line	-----W-----
Designated Water Line (S.U.E.*)	-----W-----
Sanitary Sewer	-----SS-----
Recorded Sanitary Sewer Force Main	-----FSS-----
Designated Sanitary Sewer Force Main(S.U.E.*)	-----FSS-----
Recorded Gas Line	-----G-----
Designated Gas Line (S.U.E.*)	-----G-----
Storm Sewer	-----S-----
Recorded Power Line	-----P-----
Designated Power Line (S.U.E.*)	-----P-----
Recorded Telephone Cable	-----T-----
Designated Telephone Cable (S.U.E.*)	-----T-----
Recorded UG Telephone Conduit	-----TC-----
Designated UG Telephone Conduit (S.U.E.*)	-----TC-----
Unknown Utility (S.U.E.*)	-----?UTL-----
Recorded Television Cable	-----TV-----
Designated Television Cable (S.U.E.*)	-----TV-----
Recorded Fiber Optics Cable	-----FO-----
Designated Fiber Optics Cable (S.U.E.*)	-----FO-----
Exist. Water Meter	-----⊕-----
UG Test Hole (S.U.E.*)	-----⊕-----
Abandoned According to UG Record	-----ATTUR-----
End of Information	-----E.O.I-----

BOUNDARIES & PROPERTIES

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Property Line Symbol	-----⊕-----
Exist. Iron Pin	-----⊕-----
Property Corner	-----+
Property Monument	-----⊕-----
Property Number	-----123-----
Parcel Number	-----6-----
Fence Line	-----X-----
Existing Wetland Boundaries	-----WW & ISBW-----
High Quality Wetland Boundary	-----HLB-----
Medium Quality Wetland Boundaries	-----MQ WLB-----
Low Quality Wetland Boundaries	-----LQ WLB-----
Proposed Wetland Boundaries	-----WLB-----
Existing Endangered Animal Boundaries	-----EAB-----
Existing Endangered Plant Boundaries	-----EPB-----

BUILDINGS & OTHER CULTURE

Buildings	-----
Foundations	-----
Area Outline	-----
Gate	-----
Gas Pump Vent or UG Tank Cap	-----
Church	-----
School	-----
Park	-----
Cemetery	-----
Dam	-----
Sign	-----
Well	-----
Small Mine	-----
Swimming Pool	-----

TOPOGRAPHY

Loose Surface	-----
Hard Surface	-----
Change in Road Surface	-----
Curb	-----
Right of Way Symbol	-----R/W-----
Guard Post	-----⊕ GP-----
Paved Walk	-----
Bridge	-----
Box Culvert or Tunnel	-----
Ferry	-----
Culvert	-----
Footbridge	-----
Trail, Footpath	-----
Light House	-----

VEGETATION

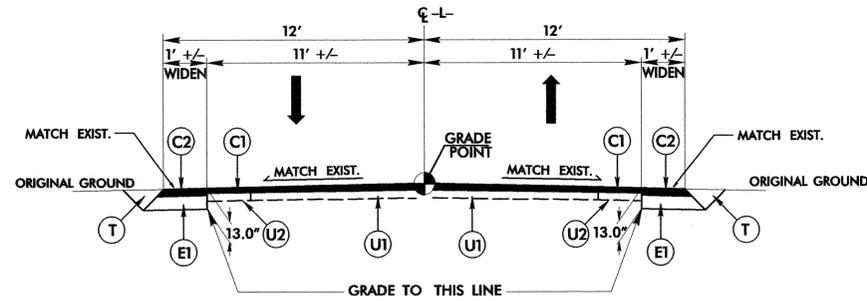
Single Tree	-----
Single Shrub	-----
Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	-----VINEYARD-----

RAILROADS

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 10" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
E3	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
R1	2'-6" CONCRETE CURB AND GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
U1	EXISTING 8" CONCRETE PAVEMENT WITH 7" ASPHALT PAVEMENT OVERLAY.
U2	EXISTING ASPHALT PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL FOR RESURFACING).

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



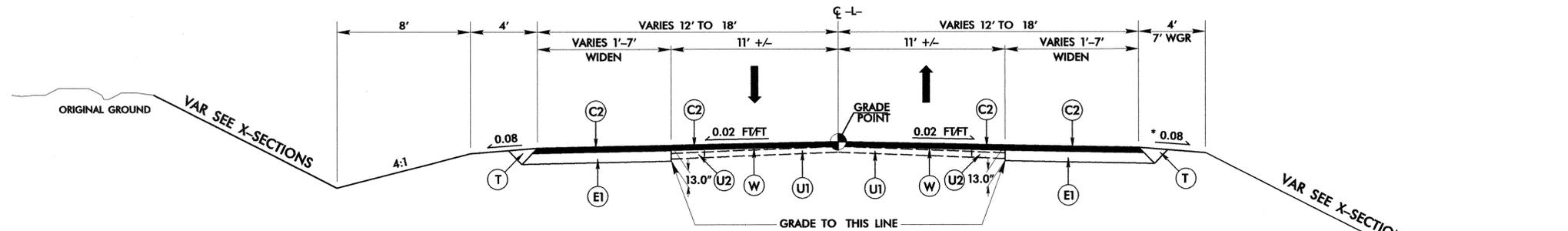
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

-L- STA. 10+80.46 TO STA. 32+73.11

NOTES: CONTRACTOR TO WEDGE AHEAD OF PAVING AS REQUIRED BY THE ENGINEER

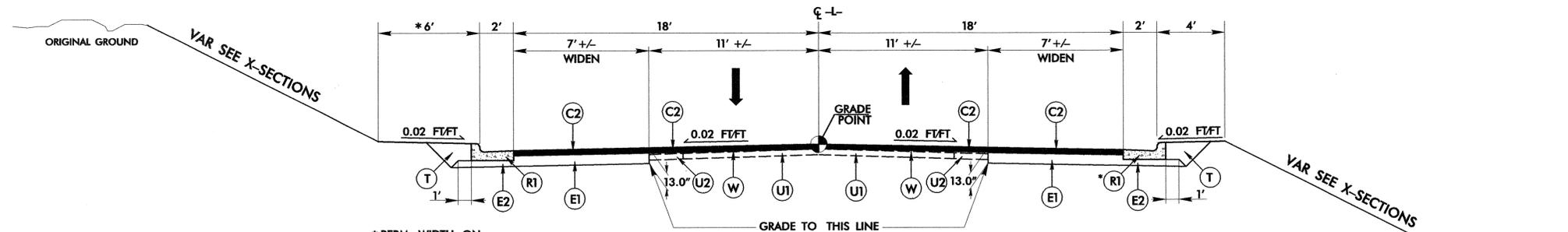
PATCH EXISTING PAVEMENT AS DIRECTED BY THE ENGINEER. SEE PAVEMENT REPAIR DETAIL THIS SHEET.



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

-L- STA. 32+73.11 TO STA. 38+58.53



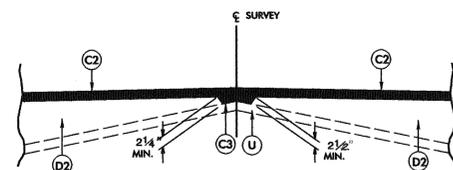
TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

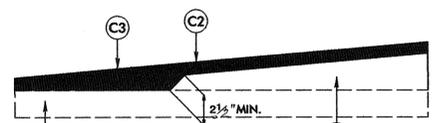
-L- STA. 38+58.53 TO STA. 59+58.00

* NOTE: BEGIN CURB & GUTTER ON RT. AT -L- STA. 38+58.53

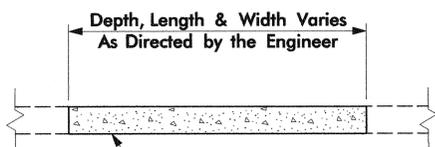
* BERM WIDTH ON NORTH SIDE IS TO BE 6'



Detail Showing Method of Wedging Where Centerline Elev. Controls

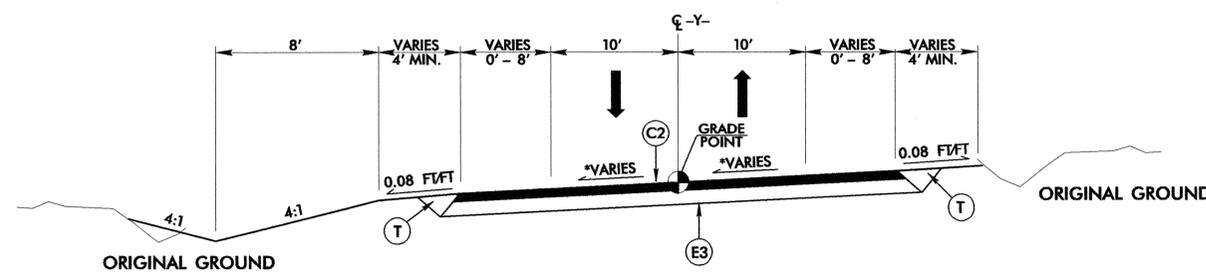


Wedging Detail For Resurfacing Where Existing E.O.P. Controls



PAVEMENT REPAIR DETAIL

ACBC or ACSC As Directed by the Engineer



TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4

-Y- STA. 10+00.00 TO STA. 11+51.85

* MATCH EXISTING CROSS SLOPE AT TIE TO EXIST. JOHN ROACH ROAD, AND MATCH GRADE AT NEW S.R. 70.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201671

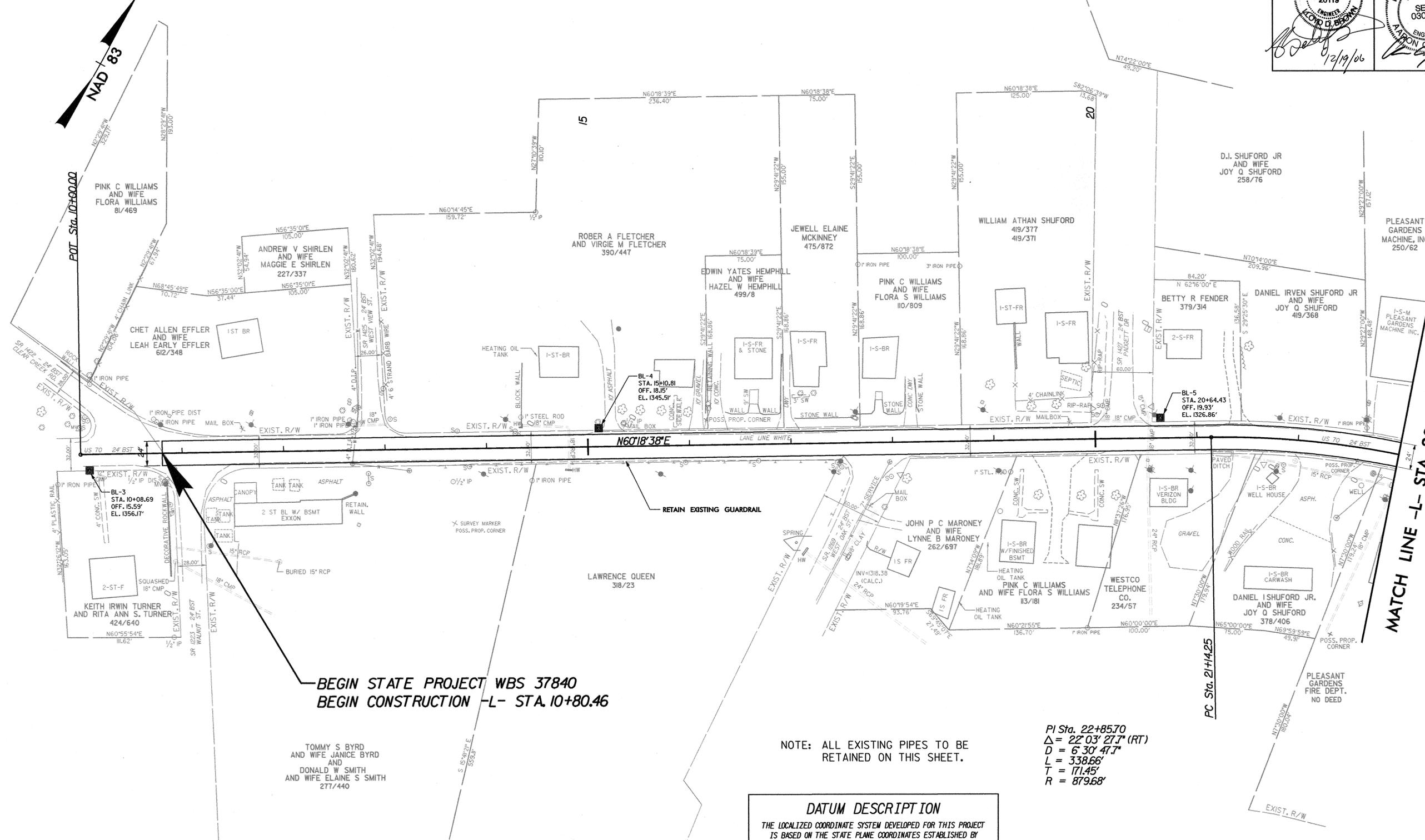
ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION
004300000-N	226	Lump Sum		GRADING
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
005700000-E	226	500	CY	UNDERCUT EXCAVATION
013400000-E	240	480	CY	DRAINAGE DITCH EXCAVATION
031800000-E	300	140	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
034400000-E	310	48	LF	18" SIDE DRAIN PIPE
036600000-E	310	1,004	LF	15" RC PIPE CULVERTS, CLASS III
070800000-E	310	28	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
071400000-E	310	60	LF	18" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
080600000-E	310	2	EA	15" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
095500000-E	340	473	LF	PIPE REMOVAL
122000000-E	545	500	TON	INCIDENTAL STONE BASE
149100000-E	610	3,470	TON	ASPHALT CONC BASE COURSE, TYPE B25.0C
150300000-E	610	500	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C
152300000-E	610	2,800	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5C
156000000-E	620	175	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
156500000-E	620	170	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
169300000-E	654	350	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
200000000-N	806	22	EA	RIGHT OF WAY MARKERS
225300000-E	840	1	CY	PIPE COLLARS
227500000-E	SP	20	CY	FLOWABLE FILL
228600000-N	840	18	EA	MASONRY DRAINAGE STRUCTURES
230800000-E	840	3	LF	MASONRY DRAINAGE STRUCTURES
236600000-N	840	1	EA	FRAME WITH TWO GRATES, STD 840.24
237400000-N	840	4	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)
237400000-N	840	7	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)
237400000-N	840	6	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)
253500000-E	846	75	LF	***X*** CONCRETE CURB (8"X12")
254900000-E	846	3,470	LF	2'-6" CONCRETE CURB & GUTTER
261200000-E	848	280	SY	6" CONCRETE DRIVEWAY
264700000-E	852	6	SY	5" MONOLITHIC CONCRETE ISLANDS (SURFACE MOUNTED)
283000000-N	858	6	EA	ADJUSTMENT OF MANHOLES
303000000-E	862	475	LF	STEEL BM GUARDRAIL
304500000-E	862	12.5	LF	STEEL BM GUARDRAIL, SHOP CURVED
315000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
321000000-N	862	1	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1
327000000-N	SP	5	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
336000000-E	863	405	LF	REMOVE EXISTING GUARDRAIL
362800000-E	876	45	TON	RIP RAP, CLASS 1
364900000-E	876	65	TON	RIP RAP, CLASS B
365600000-E	876	140	SY	FILTER FABRIC FOR DRAINAGE
440000000-E	1110	78	SF	WORK ZONE SIGNS (STATIONARY)
440500000-E	1110	168	SF	WORK ZONE SIGNS (PORTABLE)
441000000-E	1110	18	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
443000000-N	1130	275	EA	DRUMS
444500000-E	1145	50	LF	BARRICADES (TYPE III)
445000000-N	1150	1,500	HR	FLAGGER

ItemNumber	Sec #	Quantity	Unit	Description
446500000-N	1160	2	EA	TEMPORARY CRASH CUSHIONS
447000000-N	1160	2	EA	RESET TEMPORARY CRASH CUSHIONS
448500000-E	1170	142	LF	PORTABLE CONCRETE BARRIER
450000000-E	1170	55	LF	RESET PORTABLE CONCRETE BARRIER
468600000-E	1205	13,855	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
469700000-E	1205	142	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 120 MILS)
471000000-E	1205	180	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
472100000-E	1205	12	EA	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)
472500000-E	1205	19	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)
477000000-E	1205	1,180	LF	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (TYPE 4)
481000000-E	1205	55,660	LF	PAINT PAVEMENT MARKING LINES (4")
482000000-E	1205	120	LF	PAINT PAVEMENT MARKING LINES (8")
483500000-E	1205	164	LF	PAINT PAVEMENT MARKING LINES (24")
484500000-N	1205	4	EA	PAINT PAVEMENT MARKING SYMBOL
486000000-E	1205	90	LF	REMOVAL OF PAVEMENT MARKING LINES (8")
490500000-N	1253	136	EA	SNOWPLOWABLE PAVEMENT MARKERS
525500000-N	1413	Lump Sum		PORTABLE LIGHTING
532500000-E	1510	2,380	LF	8" WATER LINE
554600000-E	1515	3	EA	8" VALVE
564800000-N	1515	6	EA	RELOCATE WATER METER
566600000-E	1515	2	EA	FIRE HYDRANT
569130000-E	1520	20	LF	8" SANITARY GRAVITY SEWER
579800000-E	1530	2,300	LF	ABANDON *** UTILITY PIPE (8")

ItemNumber	Sec #	Quantity	Unit	Description
583500000-E	1540	20	LF	*** ENCASEMENT PIPE (14")
600000000-E	1605	3,900	LF	TEMPORARY SILT FENCE
600900000-E	1610	60	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	65	TON	SEDIMENT CONTROL STONE
601800000-E	1620	100	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	0.5	TON	FERTILIZER FOR TEMPORARY SEEDING
602400000-E	1622	50	LF	TEMPORARY SLOPE DRAINS
602700000-N	1622	2	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
603000000-E	1630	150	CY	SILT EXCAVATION
603600000-E	1631	300	SY	MATTING FOR EROSION CONTROL
604200000-E	1632	720	LF	1/4" HARDWARE CLOTH
604500000-E	SP	84	LF	*** TEMPORARY PIPE (18")
606900000-E	1638	5	CY	STILLING BASINS
608400000-E	1660	4	ACR	SEEDING & MULCHING
609000000-E	1661	20	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.1	TON	FERTILIZER FOR REPAIR SEEDING
611100000-E	SP	55	LF	IMPERVIOUS DIKE
611700000-N	SP	4	EA	RESPONSE FOR EROSION CONTROL
812600000-N	414	Lump Sum		CULVERT EXCAVATION, STA ***** (STA 43+15.57)
819600000-E	420	71.8	CY	CLASS A CONCRETE (CULVERT)
824500000-E	425	10,911	LB	REINFORCING STEEL (CULVERT)
***** BEGIN SCHEDULE AA ***** (3 ALTERNATES) *****				
037200000-E	310	44	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E	310	176	LF	24" RC PIPE CULVERTS, CLASS III
*** OR ***				
037200000-E	310	24	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E	310	132	LF	24" RC PIPE CULVERTS, CLASS III
053600000-E	SP	20	LF	**** HDPE PIPE CULVERTS (18")
053600000-E	SP	44	LF	**** HDPE PIPE CULVERTS (24")
*** OR ***				
037200000-E	310	24	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E	310	132	LF	24" RC PIPE CULVERTS, CLASS III
054000000-E	SP	20	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (18", 0.064")
054000000-E	SP	44	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (24", 0.064")
***** END SCHEDULE AA *****				

5/28/19

PROJECT REFERENCE NO.	SHEET NO.
37840	4
RW SHEET NO.	
ROADWAY DESIGN NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 20119 LOU D. BOON	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030453 TAYLOR C. CARTER
<i>[Signature]</i> 12/19/06	<i>[Signature]</i> 12/19/06



REVISIONS



MATCH LINE -L- STA 23+00 SEE SHEET 5

BEGIN STATE PROJECT WBS 37840
BEGIN CONSTRUCTION -L- STA. 10+80.46

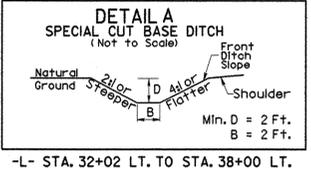
NOTE: ALL EXISTING PIPES TO BE
RETAINED ON THIS SHEET.

PI Sta. 22+85.70
Δ = 22' 03" 27.7" (RT)
D = 6' 30" 47.7"
L = 338.66'
T = 171.45'
R = 879.68'

DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCOS FOR MONUMENT "SIENA" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 720882688(1) EASTING: 1091143674(1) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1261.83 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SIENA" TO -L- STATION 10+80.46 IS 576' 54.55" N 496.67' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAD 88

FOR PROFILE, SEE SHEET 8

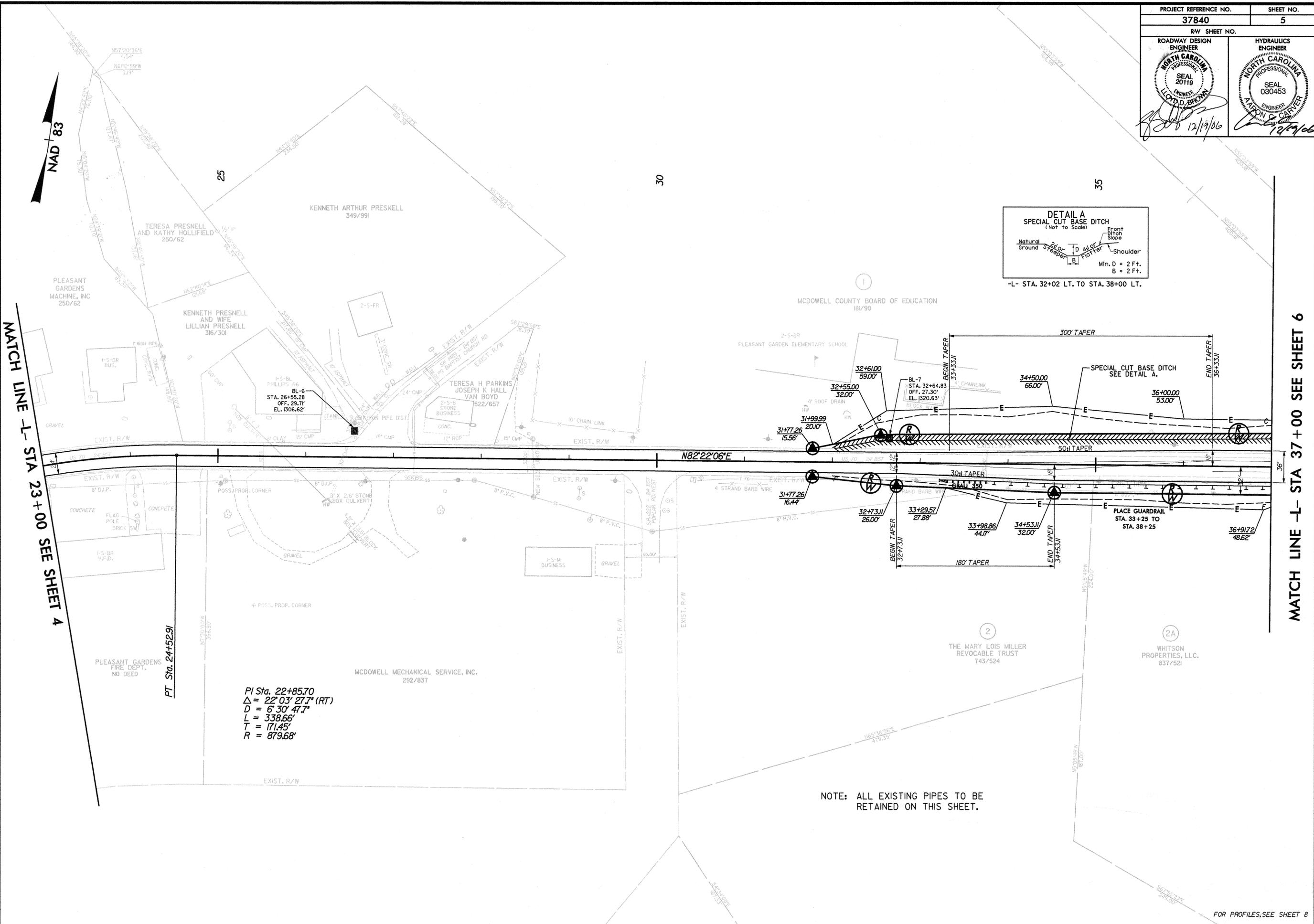
PROJECT REFERENCE NO. 37840		SHEET NO. 5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER LODD D. BROWN NORTH CAROLINA PROFESSIONAL SEAL 20119 12/19/06		HYDRAULICS ENGINEER ALAN D. CARY NORTH CAROLINA PROFESSIONAL SEAL 030453 12/19/06	



MATCH LINE -L- STA 23+00 SEE SHEET 4

MATCH LINE -L- STA 37+00 SEE SHEET 6

REVISIONS

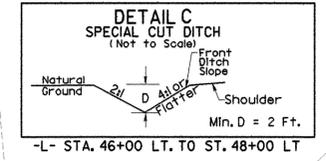
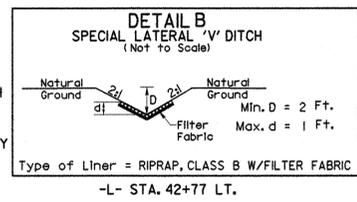
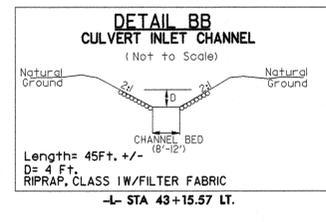
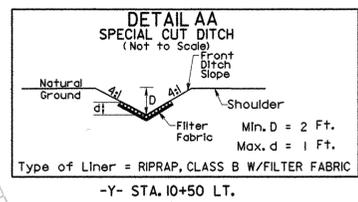
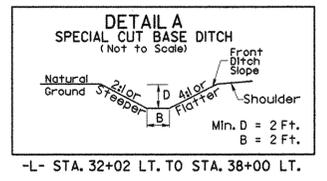


PI Sta. 22+85.70
 $\Delta = 22^{\circ} 03' 27.7''$ (RT)
 $D = 6^{\circ} 30' 47.7''$
 $L = 338.66'$
 $T = 171.45'$
 $R = 879.68'$

NOTE: ALL EXISTING PIPES TO BE RETAINED ON THIS SHEET.

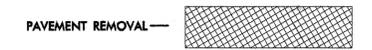
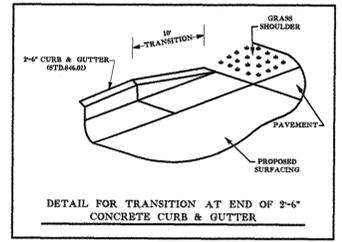
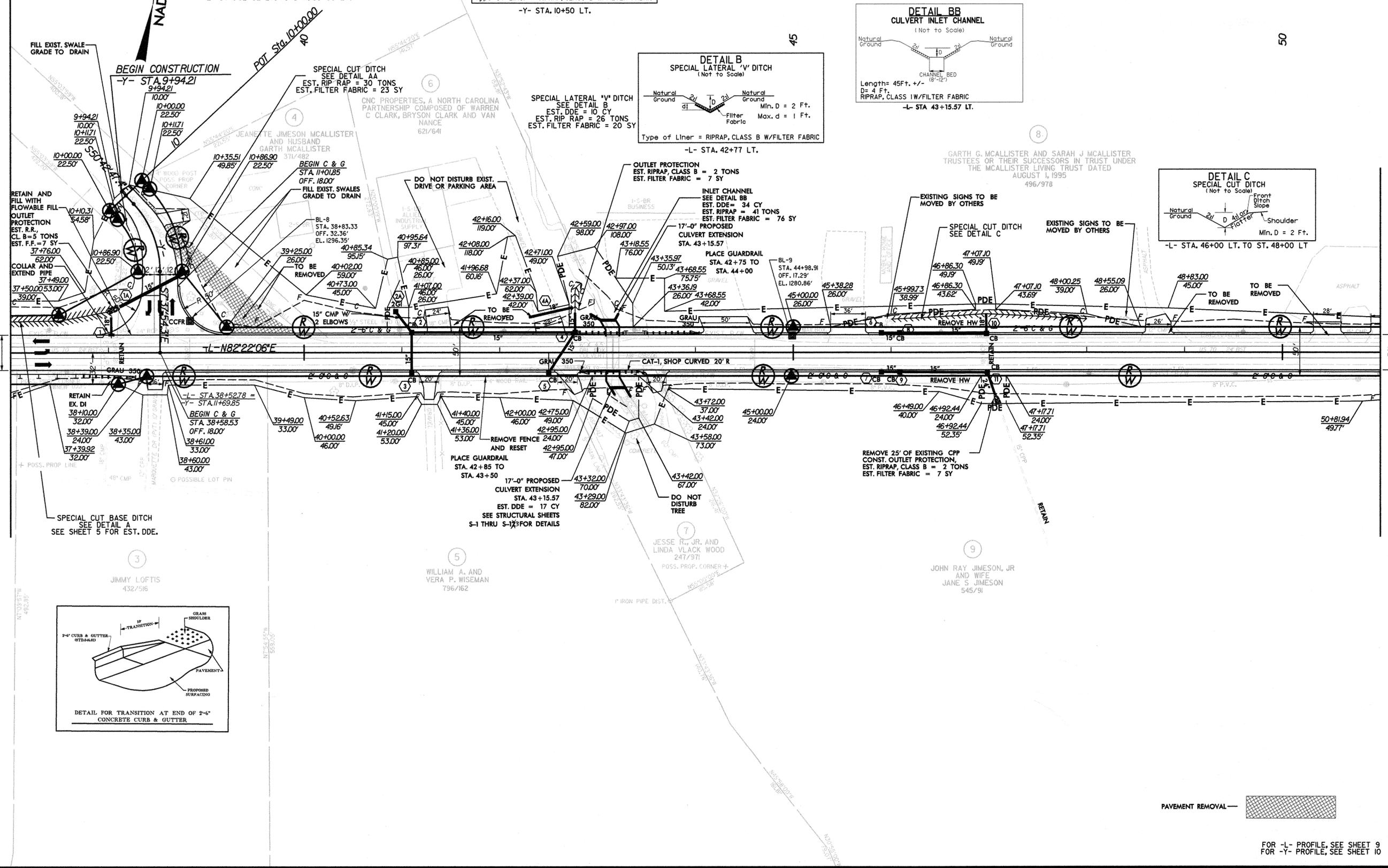
PROJECT REFERENCE NO. 37840	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 20119 LLOYD J. BROWN	HYDRAULICS ENGINEER SEAL 030453 TAYLOR C. CARTER

-Y-
PC Sta 10+11.71
PT Sta 10+86.90
PI Sta 10+51.19
 $\Delta = 43'04"53.1"$ (RT)
 $D = 57'17"44.8"$ (RT)
 $L = 75.19'$
 $T = 39.47'$
 $R = 100.00'$
FOR SUPERELEVATION,
SEE CROSS SECTIONS



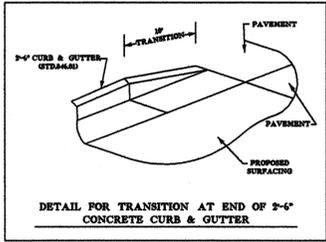
MATCH LINE -L- STA 37+00 SEE SHEET 5

MATCH LINE -L- STA 51+00 SEE SHEET 7



FOR -L- PROFILE, SEE SHEET 9
FOR -Y- PROFILE, SEE SHEET 10

PROJECT REFERENCE NO. 37840	SHEET NO. 7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER LOU D. BRANTNER SEAL 20119 12/19/06	HYDRAULICS ENGINEER DAVID S. CARTER SEAL 030453 12/19/06



MATCH LINE -L- STA 51+00 SEE SHEET 6

REVISIONS

GARTH G. MCALLISTER AND SARAH J. MCALLISTER TRUSTEES OR THEIR SUCCESSORS IN TRUST UNDER THE MCALLISTER LIVING TRUST DATED AUGUST 1, 1995 4967/378

RELOCATE & MAINTAIN FLASHING SCHOOL ZONE SIGN AT ALL TIMES

BL-10 STA. 51+36.37 OFF. 25.59' EL. 1281.44'

53+00.00 24.00'

53+00.00 33.00'

54+41.65 43.73'

JOHN RAY JIMESON, JR AND WIFE JANE S. JIMESON 545/91

JOHN RAY JIMESON, JR AND WIFE JANE JIMESON 488/642

WILLIAM B. GIBBS, JR AND WIFE BETTY ATKINS GIBBS 194/384

IOLA JIMESON COGDILL 93/595

DORIS SPARKS 326/555

WILLIAM B. GIBBS JR AND WIFE BETTY ATKINS GIBBS 193/389

REMOVE 30' AT NORTH END OF PIPE. RETAIN, FILL WITH FLOWABLE FILL.
REMOVE PART OF EXIST. 24" RCP & CMP. REPLACE WITH 24" RCP AND COLLAR. EXIST. DI TO BE REMOVED.

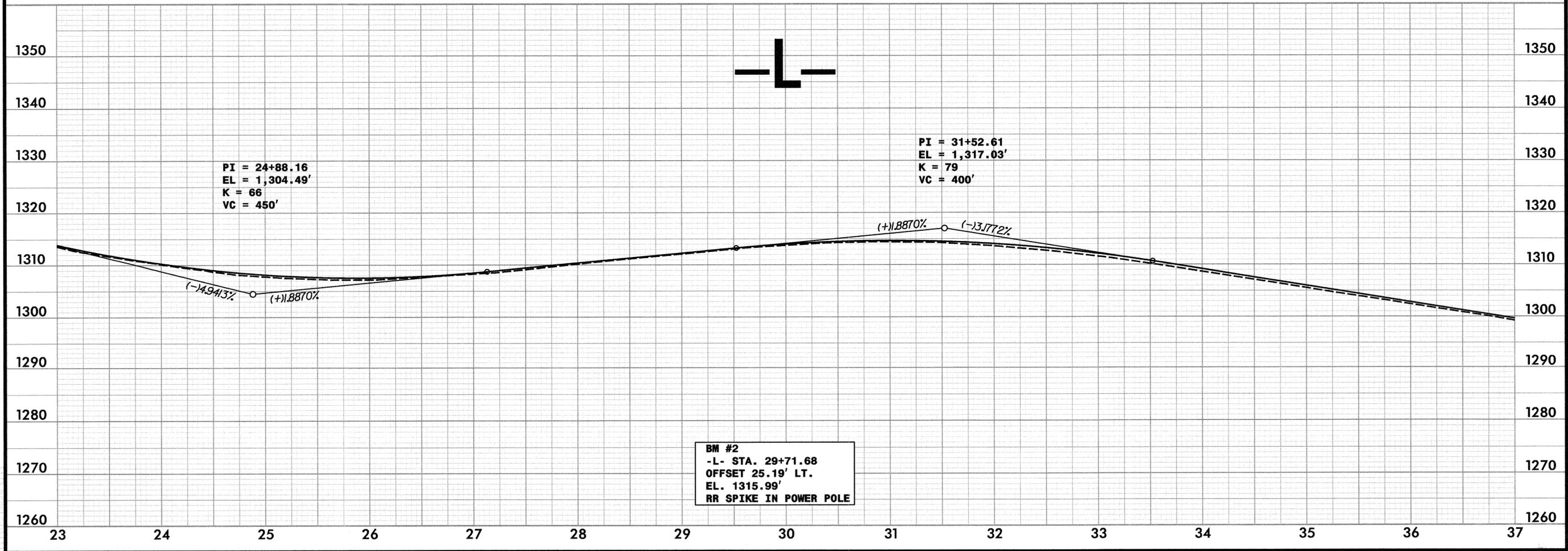
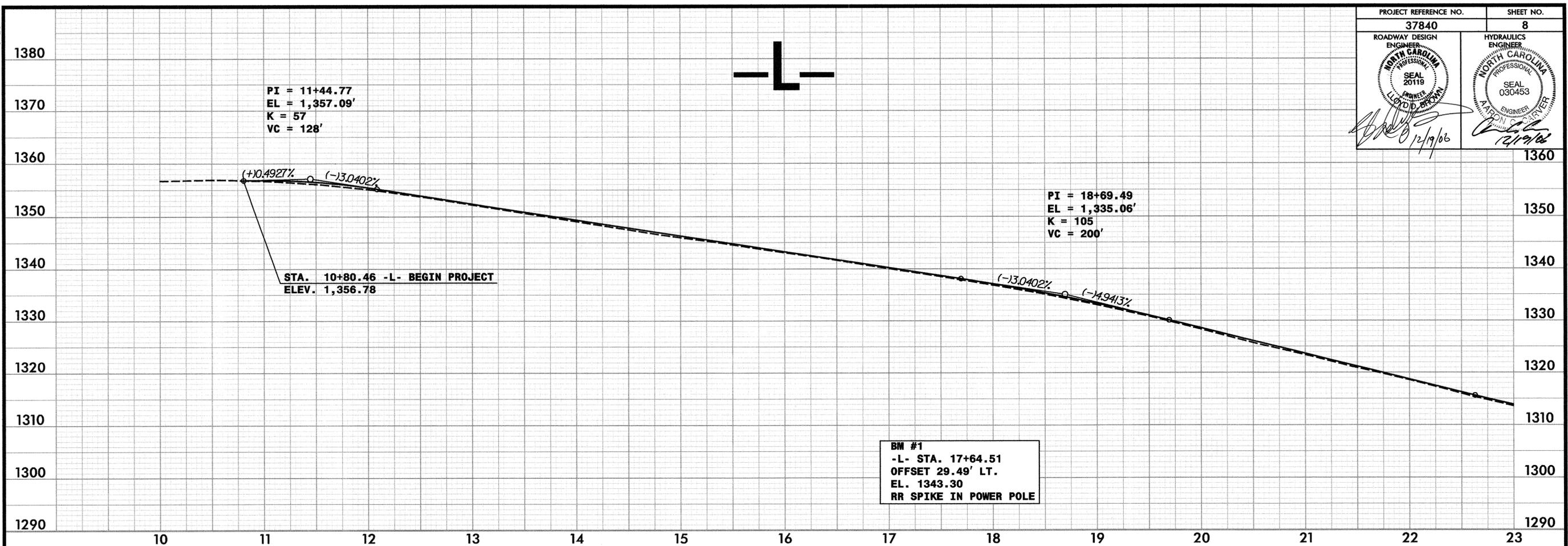
RESURFACE ASPHALT TO END OF RADIUS

END C & G TAPER OFF CURB STA. 56+61.5 OFF. 20.00'

END C & G STA. 59+12.24 OFF. 50.00'

PI Sta. 61+45.93
Δ = 15° 02' 11.9" (RT)
D = 3' 22' 13.2"
L = 446.15'
T = 224.36'
R = 1,700.00'

END STATE PROJECT WBS 38740
END CONSTRUCTION -L- POC STA. 59+58.00
(TIE TO NEW PAVEMENT)



5/28/09

CULVERT HYDRAULIC DATA

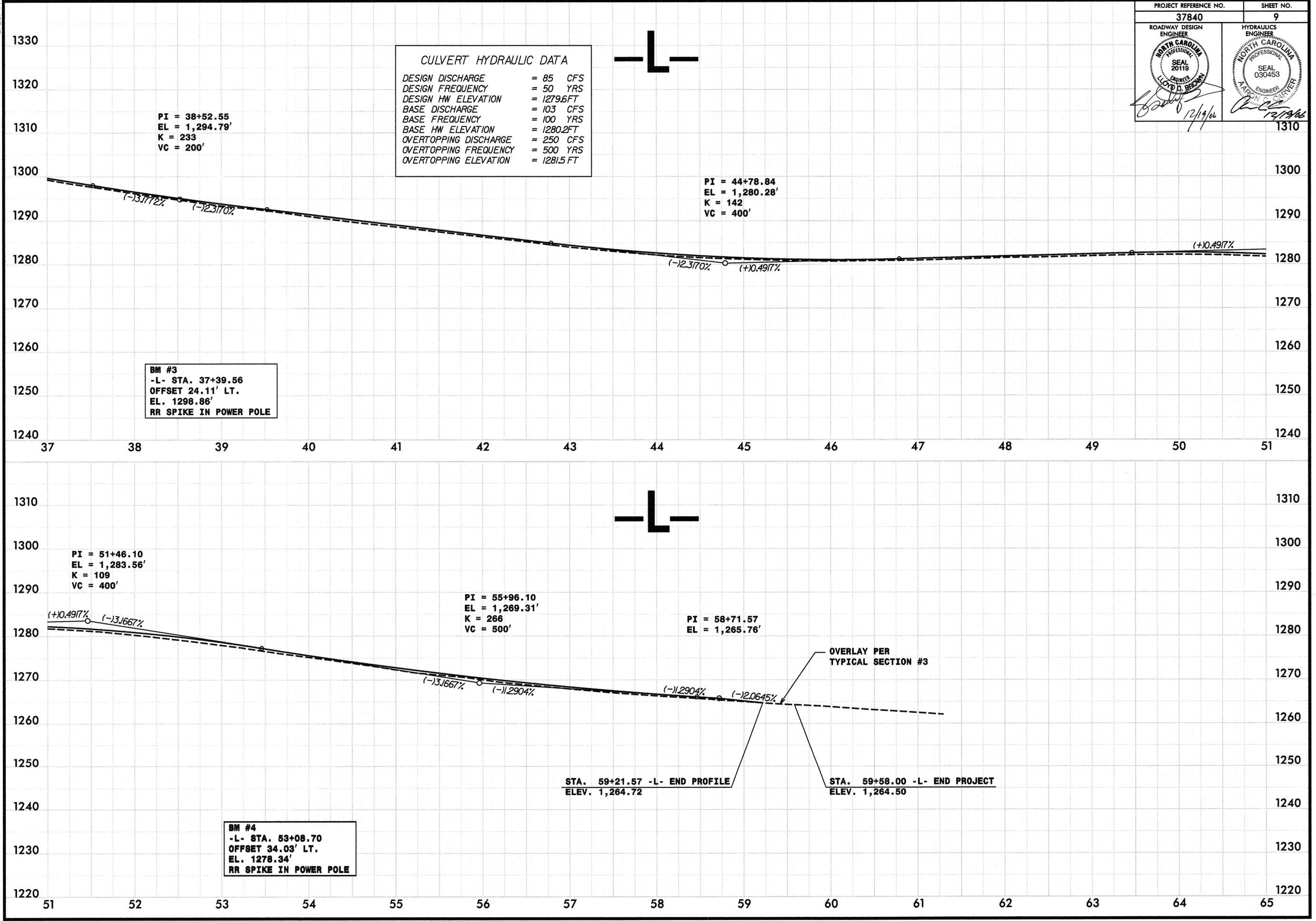
DESIGN DISCHARGE = 85 CFS
 DESIGN FREQUENCY = 50 YRS
 DESIGN HW ELEVATION = 1279.6FT
 BASE DISCHARGE = 103 CFS
 BASE FREQUENCY = 100 YRS
 BASE HW ELEVATION = 1280.2FT
 OVERTOPPING DISCHARGE = 250 CFS
 OVERTOPPING FREQUENCY = 500 YRS
 OVERTOPPING ELEVATION = 1281.5 FT

PI = 38+52.55
 EL = 1,294.79'
 K = 233
 VC = 200'

PI = 44+78.84
 EL = 1,280.28'
 K = 142
 VC = 400'

BM #3
 -L- STA. 37+39.56
 OFFSET 24.11' LT.
 EL. 1298.86'
 RR SPIKE IN POWER POLE

BM #4
 -L- STA. 53+08.70
 OFFSET 34.03' LT.
 EL. 1278.34'
 RR SPIKE IN POWER POLE



5/28/99

5/28/99

PROJECT REFERENCE NO. 37840	SHEET NO. 10
ROADWAY DESIGN ENGINEER  SEAL 20119 ENGINEER LLOYD D. BROWN	HYDRAULICS ENGINEER

LDB 12/19/06

1350
1340
1330
1320
1310
1300
1290
1280
1270
1260

1330
1320
1310
1300
1290
1280
1270
1260

-Y-

